

February 13-19, 2004

<P>The Terra spacecraft is operating nominally. All five instruments are in science mode.</P>

<P>During the morning of Wednesday, February 18, the Science Formatting Equipment Side A (SFE-A) High-rate Packet Multiplexer Card 2 (HPM-2) halted as a result of a Single Event upset that occurred while Terra was traveling south through the highest particle flux region of the South Atlantic Anomaly. This caused the onboard Telemetry Monitor (TMON 16) to trigger, resulting in the autonomous execution of commands to turn SFE-A off, thereby terminating science data recording and MODIS Direct Broadcast transmission.</P>

<P>After thorough analysis of all sub-component telemetry signatures by Terra Flight Operations Team (FOT) engineers in consultation with the Lead Command and Data Handling Engineer from the spacecraft manufacturer, it was determined that there was no hard failure or risk of damage to the SFE, so the recommendation was made to turn SFE-A back on. A command authorization meeting was held in the morning of Thursday, February 19, resulting in approval of this proposed action. At 11:11:38 a.m. EST on February 19, SFE-A was turned back on and normal science operations resumed. Confirmation of MODIS Direct Broadcast data quality is pending, but is expected to be nominal.</P>

<P>A Terra Tiger Team meeting was held on February 17. This meeting is being held regularly each Tuesday, and the team includes GSFC and White Sands personnel with Space Network and Terra FOT support. The team continues to work to diagnose the cause of K-band dropouts where the High Rate Demodulators at WSC experience a 1- to 2-second loss of main carrier lock, as well as other drops including Frame Sync loss. The team is working the items in a &#8220;fishbone&#8221; to try to isolate the space and ground segment components involved in producing the observed dropout signatures.</P>

<P><B>Plans:</B><BR>

A routine roll maneuver for support of MODIS lunar calibration will be conducted on March 10, 2004.</P>